SDS NO:RH903692 VERSION:020 06/01/17



SAFETY DATA SHEET

THE DOW CHEMICAL COMPANY*

Product name: TAMOL™ SN DISPERSING AGENT

Issue Date: 05/31/2017 Print Date: 06/01/2017

THE DOW CHEMICAL COMPANY* encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. IDENTIFICATION

Product name: TAMOL™ SN DISPERSING AGENT

Recommended use of the chemical and restrictions on use

Identified uses: Dispersant Polymer

COMPANY IDENTIFICATION

THE DOW CHEMICAL COMPANY*
Agent for Rohm and Haas Chemicals LLC
100 INDEPENDENCE MALL WEST
PHILADELPHIA PA 19106-2399
UNITED STATES

Customer Information Number:

215-592-3000

SDSQuestion@dow.com

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: 1 800 424 9300 Local Emergency Contact: 800-424-9300

2. HAZARDS IDENTIFICATION

Hazard classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Combustible dust

Label elements

Signal word: WARNING!

Hazards

May form combustible dust concentrations in air.

Precautionary statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

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Ground/bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Take precautionary measures against static discharge.

Other hazards

No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Polymers, water based

This product is a mixture.

| Component | CASRN | Concentration |
|---|-----------|---------------------|
| Formaldehyde-naphthalenesulfonic acid condensatesodium salt | 9084-06-4 | >= 78.0 - <= 98.0 % |
| Sodium sulfate | 7757-82-6 | >= 5.0 - <= 12.0 % |
| Water | 7732-18-5 | >= 2.0 - <= 10.0 % |

4. FIRST AID MEASURES

Description of first aid measures

General advice: If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation: Move person to fresh air; if effects occur, consult a physician.

Skin contact: Wash off with plenty of water. Suitable emergency safety shower facility should be available in work area.

Eye contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

Ingestion: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

Indication of any immediate medical attention and special treatment needed

Notes to physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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5. FIREFIGHTING MEASURES

Suitable extinguishing media: Extinguishing media - small fires Dry chemical Carbon dioxide (CO2) Water spray

Unsuitable extinguishing media: No data available

Special hazards arising from the substance or mixture Hazardous combustion products: No data available

Unusual Fire and Explosion Hazards: Material as sold is combustible; burns vigorously with intense heat. Dusts at sufficient concentrations can form explosive mixtures with air.

Advice for firefighters

Fire Fighting Procedures: Cool closed containers exposed to fire with water spray. DO NOT use a solid stream of water. A solid stream of water directed at this material may create a potentially explosive airborne dust mixture.

Special protective equipment for firefighters: Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Material can create slippery conditions. Remove all sources of ignition. Avoid breathing dust.

Environmental precautions: CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water.

Methods and materials for containment and cleaning up: Sweep up and shovel into suitable containers for disposal. Use water spray to keep dusting to a minimum.

7. HANDLING AND STORAGE

Precautions for safe handling: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container tightly closed.

Conditions for safe storage: Keep away from heat, sparks, flame, and other sources of ignition. Keep container tightly closed. Store in a cool, dry, well ventilated place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure

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limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection: Use safety glasses (with side shields).

Skin protection

Hand protection: Use gloves chemically resistant to this material. Examples of preferred glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In dusty or misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Particulate filter.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical state Powdered solid

Color tan

Odor No data available
Odor Threshold No data available

pH 8.8 - 10.0 (2% Solution)

Melting point/rangeNot applicableFreezing pointNo data availableBoiling point (760 mmHg)Not applicableFlash pointNot applicableEvaporation Rate (Butyl AcetateNo data available

= 1)

Flammability (solid, gas)

May form combustible dust concentrations in air.

Lower explosion limitNo data availableUpper explosion limitNo data availableVapor PressureNo data availableRelative Vapor Density (air = 1)No data available

Relative Density (water = 1) 0.4000 - 0.7000 Bulk density

Water solubility
Partition coefficient: n-

completely soluble

octanol/water

No data available

Auto-ignition temperature

No data available

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Decomposition temperature

No data available

Kinematic Viscosity

No data available

Explosive properties

No data available

Oxidizing properties

No data available

Molecular weight

No data available

Percent volatility

3 - 7%

NOTE: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: No data available

Possibility of hazardous reactions: None known.

Product will not undergo polymerization.

Stable

Conditions to avoid: No data available

Incompatible materials: Acids

Hazardous decomposition products: No data available

11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

Acute toxicity

Acute oral toxicity

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

As product: Single dose oral LD50 has not been determined.

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product: The dermal LD50 has not been determined.

Acute inhalation toxicity

Brief exposure (minutes) is not likely to cause adverse effects. Dust may cause irritation to upper respiratory tract (nose and throat).

As product: The LC50 has not been determined.

Skin corrosion/irritation

Brief contact may cause slight skin irritation with local redness.

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May cause more severe response if skin is abraded (scratched or cut).

Serious eye damage/eye irritation

May cause slight temporary eye irritation.

Corneal injury is unlikely.

May cause pain disproportionate to the level of irritation to eye tissues.

Sensitization

For skin sensitization:

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Based on available data, repeated exposures to small amounts are not anticipated to cause significant adverse effects.

Carcinogenicity

No relevant data found.

Teratogenicity

Contains component(s) which did not cause birth defects or any other fetal effects in lab animals.

Reproductive toxicity

Product test data not available. Refer to component data.

Mutagenicity

In vitro genetic toxicity studies were negative for component(s) tested.

Aspiration Hazard

Based on physical properties, not likely to be an aspiration hazard.

COMPONENTS INFLUENCING TOXICOLOGY:

Formaldehyde-naphthalenesulfonic acid condensatesodium salt

Acute oral toxicity

LD50, Rat, 3,800 mg/kg

Acute dermal toxicity

LD50, Rabbit, > 2,000 mg/kg No deaths occurred at this concentration.

Acute inhalation toxicity

The LC50 has not been determined.

Reproductive toxicity

In animal studies, did not interfere with reproduction.

Sodium sulfate

Acute oral toxicity

LD50, Rat, female, > 2,000 mg/kg

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Acute dermal toxicity

The dermal LD50 has not been determined.

Acute inhalation toxicity

Vapors are unlikely due to physical properties. Dust may cause irritation to upper respiratory tract (nose and throat). No adverse effects are anticipated from single exposure to mist.

LC50, Rat, male and female, 4 Hour, dust/mist, > 2.4 mg/l No deaths occurred at this concentration.

Reproductive toxicity

In animal studies, did not interfere with reproduction.

12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

Toxicity

Formaldehyde-naphthalenesulfonic acid condensatesodium salt

Acute toxicity to fish

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

LC50, Fathead minnow (Pimephales promelas), Static, 96 Hour, 100 mg/l

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), Static, 48 Hour, 71 mg/l

Sodium sulfate

Acute toxicity to fish

Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 >100 mg/L in the most sensitive species tested). LC50, Pimephales promelas (fathead minnow), Static, 96 Hour, 7,960 mg/L

Acute toxicity to aquatic invertebrates

EC50, Daphnia magna (Water flea), 48 Hour, 578 - 1,980 mg/l EC50, saltwater mysid Mysidopsis bahia, 48 Hour, > 118,000 mg/l

Acute toxicity to algae/aquatic plants

EC50, Nitscheria linearis, static test, 120 Hour, Growth rate, 1,900 mg/l

Chronic toxicity to aquatic invertebrates

NOEC, Ceriodaphnia dubia (water flea), semi-static test, 7 d, number of offspring, 1,109 mg/l

Persistence and degradability

Formaldehyde-naphthalenesulfonic acid condensatesodium salt

Biodegradability: Material is not readily biodegradable according to OECD/EEC guidelines.

Sodium sulfate

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Biodegradability: Biodegradation is not applicable.

Bioaccumulative potential

Formaldehyde-naphthalenesulfonic acid condensatesodium salt

Bioaccumulation: No relevant data found.

Sodium sulfate

Bioaccumulation: Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

Partition coefficient: n-octanol/water(log Pow): -4.38 Estimated.

Bioconcentration factor (BCF): 0.5 Estimated.

Mobility in soil

Formaldehyde-naphthalenesulfonic acid condensatesodium salt

No relevant data found.

Sodium sulfate

Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient (Koc): 6 Estimated.

13. DISPOSAL CONSIDERATIONS

Disposal methods: Place powder in air-tight bags. For disposal, incinerate this material at a facility that complies with local, state, and federal regulations.

Contaminated packaging: Empty containers retain product residues. Follow label warnings even after container is emptied. Improper disposal or reuse of this container may be dangerous and illegal. Refer to applicable federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT

Not regulated for transport

Classification for SEA transport (IMO-IMDG):

Not regulated for transport

Consult IMO regulations before transporting ocean bulk

Transport in bulk according to Annex I or II of MARPOL 73/78 and the

IBC or IGC Code

Classification for AIR transport (IATA/ICAO):

Not regulated for transport

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container

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volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Acute Health Hazard

Fire Hazard

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) Section 103

Calculated RQ exceeds reasonably attainable upper limit.

Components

CASRN

RQ (RCRA Code)

Formaldehyde

50-00-0

100 lbs RQ

Pennsylvania

Any material listed as "Not Hazardous" in the CAS REG NO. column of SECTION 2, Composition/Information On Ingredients, of this MSDS is a trade secret under the provisions of the Pennsylvania Worker and Community Right-to-Know Act.

United States TSCA Inventory (TSCA)

All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

16. OTHER INFORMATION

Hazard Rating System

HMIS

| Health | Flammability | Physical Hazard |
|--------|--------------|--------------------|
| 1 | 1 | 0 |

Revision

Identification Number: 101082532 / 1001 / Issue Date: 05/31/2017 / Version: 6.0 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

ORDER NO:MV898140 ·

SAFETY DATA SHEET CUST:BULK CHEMICALS INC

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Univar USA Inc Safety Data Sheet

For Additional Information contact SDS Coordinator during business hours, Pacific time: (425) 889-3400

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